

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions, and listings, of claims in the application.

1 1 (original): A mercury vapor discharge fluorescent lamp comprising a light-transmissive glass envelope
2 having an inner surface, means for providing a discharge, a barrier layer coated adjacent said inner
3 surface of said glass envelope, a phosphor layer coated adjacent the inner surface of said barrier layer,
4 and a fill gas of mercury and an inert gas sealed inside said envelope, said barrier layer comprising
5 barrier layer substrate particles and 0.1-10 wt.% yttria, said barrier layer having crystalline yttria particles
6 dispersed throughout said barrier layer.

1 2 (original): A lamp according to claim 1, wherein said barrier layer is an alumina barrier layer.

1 3 (original): A lamp according to claim 1, said barrier layer further comprising a yttria film coated over
2 the surfaces of said barrier layer substrate particles and said inner surface of said glass envelope.

1 4 (original): A lamp according to claim 2, said alumina barrier layer comprising a mixture of alpha- and
2 gamma-alumina particles having a mean particle size of 15-800 nm.

1 5 (original): A lamp according to claim 2, said alumina barrier layer having a coating weight of 0.05-3
2 mg/cm².

1 6 (original): A lamp according to claim 1, said barrier layer being selected from the group consisting of
2 silica, hafnia, zirconia, vanadia, and niobia barrier layers, and mixtures thereof.

1 7 (original): A lamp according to claim 1, said lamp being a T8 lamp initially containing less than 5 mg of
2 mercury.

1 8 (currently amended): A mercury vapor discharge lamp comprising a light-transmissive glass envelope
2 having an inner surface, means for providing a discharge, a phosphor layer coated adjacent the inner
3 surface of said glass envelope, and a fill gas of mercury and an inert gas sealed inside said envelope,
4 said phosphor layer comprising phosphor particles and 0.001-10 wt.% yttria, said phosphor layer having
5 crystalline yttria particles dispersed throughout said phosphor layer, said phosphor layer further
6 comprising a yttria film coated over the surfaces of said phosphor particles and said inner surface of said

7 glass envelope, each of said phosphor particles having a yttria film substantially uniformly coated over
8 its surface, said yttria film being formed from yttrium salt dissolved in a liquid medium.

1 9 (original): A lamp according to claim 8, wherein said phosphor layer is a rare earth triphosphor layer.

1 10 (canceled)

1 11 (original): A lamp according to claim 8, wherein said phosphor layer has a coating weight of 1-5
2 mg/cm².

1 12 (original): A lamp according to claim 8, wherein said phosphor layer is a halophosphate layer.

1 13 (original): A lamp according to claim 8, said lamp being a T8 lamp initially containing less than 5 mg
2 of mercury.

1 14-25 (canceled)

1 26 (previously presented): The lamp of claim 8, said phosphor layer comprising 0.01-5 wt. % yttria.

1 27 (previously presented): The lamp of claim 8, said phosphor layer comprising 1 wt. % yttria.

1 28 (previously presented): The lamp of claim 8, wherein said lamp is free from the presence of a barrier
2 layer between said phosphor layer and said glass envelope.

1 29 (previously presented): The lamp of claim 8, wherein the yttria film coated over the surfaces of said
2 phosphor particles is sufficiently thin to substantially avoid adverse optical effects.

1 30 (previously presented): The lamp of claim 1, said barrier layer comprising 1-4 wt. % yttria.

1 31 (previously presented): The lamp of claim 2, said barrier layer comprising 1.5-3 wt. % yttria.

1 32 (previously presented): The lamp of claim 2, said barrier layer comprising about 2 wt. % yttria.

1 33 (previously presented): The lamp of claim 3, wherein each of said barrier layer substrate particles has
2 a yttria film substantially uniformly coated over its surface.